AU/AWC/RWP209/96-04

AIR WAR COLLEGE

AIR UNIVERSITY

IT'S TIME FOR THE BASIC AIRPOWER SCHOOL

by

John C. Scherer, Lt Col, USAF

A Research Report Submitted To The Faculty

In Fulfillment Of The Curriculum Requirement

Advisor: COL Richard R. Crawford, USMC

Maxwell Air Force Base, Alabama April 1996

20010921 152

DISTRIBUTION A:

Approved for public release; distribution is unlimited.

Air War College Maxwell AFB, Al 36112

Disclaimer

This study represents the view of the author and does not necessarily reflect the official opinion of the Air War College or the Department of the Air Force. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States Government.

Contents

Page	?
DISCLAIMER iv	7
ABSTRACT vii	i
INTRODUCTION1	L
HOW ARE WE CURRENTLY TRAINING OUR OFFICERS?12	2
BASIC AIRPOWER SCHOOL24	1
BAS SYLLABUS—STRATEGY, DOCTRINE AND AIRPOWER BACKGROUND 30 BAS Syllabus—Core Values	5
SPACE AND INFORMATION WARFARE 49)
FLIGHT COMMANDER'S COURSE	5
WARGAMING, FIELD EXERCISE, AND FLIGHT TRAINING60)
CONCLUSION73	3
BIBLIOGRAPHY76	5

Abstract

The United States Air Force's performance over the last 48 years has been remarkably good. We all have a good understanding of what we do individually and at least some feeling for what the Air Force does as an institution. But, we don't do a very good job of teaching all our line officers what the core competencies of The Air Force are. We've become a collection of specialists. The way we train our officers today tends to reinforce our ideas of specialization and fractionalization.

To solve this, this paper proposes a six-month long, permanent change of station school at Maxwell Air Force Base called The Basic Airpower School. Its purpose would be to develop airminded officers who could articulate the core competencies of the United States Air Force. This school would take place after commissioning and before specialization training of all line second lieutenants. The Basic Airpower School would be a 1,000 hour (125 training days) program with instruction in the following areas: History and theory of air power and doctrine; Core values; Space Operations; Information Warfare; Air Superiority; Deep Attack; Global Strike; Air Mobility; Flight Commanders Course; Two week field training exercise; Wargaming exercise and finally, flying training (through solo) for all second lieutenants not attending undergraduate pilot or navigator training. Graduates would be airminded officers able to articulate our Air Force's core competencies.

Chapter 1

Introduction

General Dugan reportedly tells a story that goes something like this. If you ask an Army Officer what he does, you'll get a 30-minute dissertation on the Airland Battle Doctrine. If you ask a Marine what he does, he'll answer: "I'm a Marine," and then give you a detailed explanation about amphibious operations and the Marine Air Ground Task Force. Ask a Naval Officer what she does and she'll tell you more than you want to know about the Maritime Strategy and her take on "Forward from the Sea." Finally, when you ask an Air Force Officer what he or she does, a likely response would be: "Happy hour starts at 1730 today!"

Now this story is, of course, not the way things really are, but there is more truth than many of us in the Air Force would like to admit. The United States Air Force's performance over the last 48 years has been remarkably good. We all have a good understanding of what we do individually and at least some feeling for what the Air Force does as an institution.² But, we don't do a very good job of teaching all our line officers what the core competencies and core values of the Air Force are. We've become a collection of specialists. "I'm a C-5 driver" or I'm an F-16 pilot" or "I'm a maintainer" or "I'm not rated" have become all too common in our daily conversations.

Specialization, particularly in today's extraordinary complexity, has serious deficiencies. For one thing, specialists tend not to talk to each other. When they do, they find it hard (or intimidating) to communicate because they speak different languages.³ This is happening in today's Air Force. The beginning of this specialization are laid out by Carl Builder. He states: "As an institution, the Air Force started to fractionate once it shifted its devotion from the unifying ends or mission of air power to its separate means. Missiles and space were not the only areas accepted as different means and careers in the Air Force. If they could co-exist alongside the aviators, then so too could the long-suppressed fighter pilots." Builder is pointing out a critical juncture in Air Force history—a turning away from the unifying theories of strategic bombardment to fractionalized specialists. The way we train our officers today tends to reinforce this specialization and fractionalization.

About a month ago, I was picking up my laundry in the Officer Training School (OTS) area. I spotted a sharp looking upper-classman and asked him, "Where are you going when you graduate?" He replied proudly, "Acquisition, Sir." I then asked if he would report directly to his base or receive more training. He stated that he would report to his base first and get acquisition training later. I then asked him a loaded question, "What do you know about the core competencies of the Air Force?" His reply was interesting; he said, "Diddley, sir." Now this is one anecdotal example of a soon-to-be second lieutenant, but his answer points out what could be improved in our officer corps training. It's time for the Basic Airpower School (BAS).

The BAS would be a six-month permanent change of station (PCS) course held at Maxwell Air Force Base for every line second lieutenant in the active Air Force. Its purpose would be to develop airminded officers who could articulate the core competencies and core values of the United States Air Force. This training would take place—like the Marine Corps Basic School—before any officer went on to his or her specialization. As the opening story pointed out, the Air Force does not have a reputation that all its officers can articulate what the Air Force does best. An example of this is the current joint doctrine debate. Joint Pub 1 states that the requirement to plan and conduct joint operations demands expanded intellectual sharpness and broadened professional knowledge.⁵ Our current Air Force training for officers is not accomplishing this effectively. Our specialized, individual specialty mindset continues to allow us to miss the big picture—what our core competencies are and what the Air Force brings to the table.

All airmen are responsible for advocating and articulating airpower. Too often, airmen cannot even talk their own talk. This leads to situations where we do not understand and subsequently cannot intelligently counter surface force arguments with a well-articulated airpower perspective. We simply have not made doctrine and core competencies the foundation of our officers' educations. Airmen, from their perch above the battlefield, have an operational and strategic view from a very early age. The airman implicitly understands how quickly effort can be shifted across the theater—not over days—but from mission to mission and even within the same mission. Our bomber heritage has driven us to think in terms of a maneuver force in the third dimension. This unique perspective of the airmen must become part of every Air Force officer's education. We must be able to articulate what we do and how we think with our sister service compatriots. This training must start at the beginning. We must improve our training so

we can transcend occupational specialties and call ourselves "airmen" with a note of pride in our voices.

The Basic Airpower School would be a course of 1,000 hours, spread over six months (125 training days) with an average of eight hours per day. The purpose of this paper is to develop a *concept* for BAS and lay out a conceptual framework for its syllabus. This school would be expensive and the author fully understands this. The purpose, however, is not to do a monetary analysis of the proposed BAS, but to lay out a conceptual framework to facilitate discussion about professional military education for our new officers. BAS in 1,000 hours of instruction would include the following areas: History and Theory of Air Power, Strategy and Doctrine, Core Values, Space Operations, Information Warfare, Air Superiority, Deep Attack, Global Strike, Air Mobility, Flight Commander's Course, a two week field training encampment, a wargaming exercise, and finally, flying training (through solo) for all student officers not attending undergraduate pilot or navigator training. The rest of the paper will examine how we currently train our officers and then develop, in some detail, the framework for the Basic Airpower School.

To understand the need for BAS, we should look back to a perceptive observation by Admiral Elmo R. Zumwalt, Chief of Naval Operations from 1970-1974: "Zumwalt [thought that] the technologically complicated carrier (and the similarly sophisticated and expensive nuclear submarine) required Navy personnel to go early into intensive specialization. Officers...were thus forced to adopt a narrow, operational focus, to form 'unions', particularist and exclusive communities within the Navy that closed minds and limited vision. Officers looked at procurement in terms of the attributes of their specialty—surface, sub-surface, aviation warfare or nuclear propulsion—instead of taking

a broader, Navy-wide mission-orientated perspective, the view of unrestricted general line officers. Absence of a comprehensive mission outlook diminished awareness of campaign or strategic alternatives. Loss of mission focus, led, simply put, to concentration on the delivery platform, not on the mission."

The Air Force today is very similar to the Navy Admiral Zumwalt described. In fact, soon after taking over as AF/XO (Deputy Chief of Staff, Plans and Operations at the Air Staff), then Lieutenant General Dugan believed that the Air Force was too preoccupied with new weaponry at the expense of strategy. General Dugan ordered that a new strategy office be created, and Colonel John Warden was made its director. The Gulf War's Air Campaign—conceived by Warden—to take the war to downtown Baghdad from the opening moments of the shooting, was one of the military's most important strategic innovations. This strategic innovation was initially a hard sell, even inside the Air Force. 10

BAS will take second lieutenants and, with the broad based syllabus proposed, make airminded officers with a firm foundation in the history and doctrine of airpower and an indepth understanding of the Air Force's core competencies. This initial training will help the officer corps start from the same sheet of music and help avoid the "unionization" that Admiral Zumwalt described and all of us have seen. Perhaps with a trained officer corps, the next Desert Storm Air Campaign won't be a hard sell inside the Air Force, and the other services can more fully recognize the vital core competencies the United States Air Force brings to the table.

¹ Conversation with Colonel Phil Meillinger, Maxwell AFB, AL, 30 January 1996.

Notes

² McPeak, Merrill A., "Does the Air Force Have a Mission?" Selected Works, 1990-1994, Maxwell Air Force Base, Alabama, Air University Press, August 1995, pp. 151.

³ Petersen, John L., The Road to 2015, (Corte Madera, CA: Waite Group Press,

1994) p. 10.

⁴ Builder, Carl H., *The Icarus Syndrome*, (New Brunswick: Transaction Publishers, 1994), p. 179.

⁵ Joint Pub 1, pp. iii-7.

⁶ Pivarsky, Carl R., "Airpower in the Context of a Dysfunctional Joint Doctrine," (Unpublished paper, Air War College, January 1996), p. 2.

⁷ Ibid., 14.

⁸ Baer, George W., One Hundred Years of Sea Power: The U.S. Navy, 1890-1990,

(Palo Alto: Stanford University Press, 1994), p. 403.

⁹ Gordon, Michael R. and General Bernard E. Trainor, *The Generals' War, The Inside Story of the Conflict in the Gulf*, (Boston, Little Brown and Company, 1995), pp. 77-78.

¹⁰ Ibid., 77.

Chapter 2

How Are We Currently Training Our Officers?

Currently, Air Force line officers are trained at three sources: Reserve Officer Training Corps (ROTC), Officer Training School (OTS), and the United States Air Force Academy (USAFA). ROTC is the oldest and largest source of officers for the Air Force. Over the future years defense plan (FYDP)—FY96-FY00—ROTC plans to commission between 1550 and 1900 officers per year. There are 146 Air Force ROTC detachments scattered across the nation. ROTC produces between 50 and 60 percent of all line officers in the Air Force. The ROTC syllabus is divided into two major divisions, the General Military Course (GMC) and Professional Officer Course (POC). ROTC's Curriculum 2000 recently redesigned the program. ROTC's approximately 420 hours —over four years—emphasizes followership in the GMC and preparation for active duty in the POC. Curriculum 2000 has greatly reduced the amount of time devoted to military history. Lieutenant Colonel Myke Gable, ROTC curriculum director states, "After all, we're not trying to produce historians. We're trying to produce second lieutenants."

Officer Training School (OTS), conducted at Maxwell Air Force Base, Alabama trains the smallest number of line officers of the three commissioning sources. Over the FYDP (FYs 96-00), OTS plans to commission 707, 438, 490, 1063 and 1257 officers, respectively.⁵ The OTS curriculum is composed of five major areas for a total of 279

academic hours. The largest area (127 hours) is leadership studies. Leadership studies focus on evaluating the leadership potential of officer trainees. Professional knowledge (39.5 hours) includes the basics of how to wear the uniform, how to read a pay statement and how to conduct a military ceremony. Defense studies (18.5 hours) focuses on the leaders, campaigns and weapons systems of our military heritage. Students grasp the "essence of global reach and power." The remaining two areas, communications skills and drill and ceremonies, are self-explanatory and comprise 94 hours.⁶

The final commissioning source is the United States Air Force Academy (USAFA). USAFA is a four-year military academy. Projected graduation numbers from FY 96 to FY00 are as follows: FY 96-908; FY97-774; FY98-961; FY99-976; and FY00-896. USAFA has the most extensive professional military education of the three commissioning sources primarily because cadets wear uniforms all the time and are in residence most of four years at the Academy. The three commissioning sources have a common core of professional military education.8 The current complete academic program at USAFA is approximately 171.5 semester hours. Professional military studies such as foundations of the military profession, air power, theory and doctrine and joint and multinational operations make up about 13.0 semester hours (approximately 455 hours based on 42 fifty-minute lessons per semester). The professional military education portion of the Academy is less than 10% of the total academic program. The three commissioning programs all turn out excellent officers, but their programs do not lend themselves to extensive preparation of officers schooled in strategy, doctrine and the core competencies of the Air Force. Even the Air Force Academy, with the most rigorous requirements, devotes less than 10% of its academic time to professional military studies. Our Air Force is not preparing its officers to be airminded proponents of airpower fully able to articulate the core competencies of our service.

After commissioning, new lieutenants go to a number of technical schools (in addition to UPT and UNT) ranging from two weeks to nineteen weeks. ¹⁰ Several technical specialists don't go to any school at all; weather, civil engineers and technical engineers are three examples. ¹¹ We're asking our officers today to go out and do their jobs with little founding in the core competencies of the Air Force.

It's appropriate to mention Squadron Officers' School (SOS). SOS is the initial course in the Air Force Officer's professional military education system. The purpose of SOS, which is attended by Captains with between four and seven years commissioned service, is to allow the students to step out of their specialties and broaden their focus on officership and on the Air Force as a profession of arms.¹² The SOS curriculum consists of 196 hours in five areas. The five areas include: (1) Values of the professional officer—38 hours; (2) Foundations of air and space power—20 hours; (3) Leadership tools—45 hours; (4) Applications and evaluation (team problem solving), athletics and operation Balboa—a computerized war game—83 hours; and (5) Electives—10 hours.¹³ SOS has been in existence since 1946 and at Maxwell AFB since 1950. It is an excellent school, but I would argue that the Basic Airpower School should replace SOS. Teaching the officer the core values of the service and the core competencies of the Air Force needs to be done immediately upon commissioning.

Professional military education should first illuminate the centrality of combat (core competencies), then emphasize the linkage of its subject matter to combat.¹⁴ The proposed BAS would emphasize the core competencies of the Air Force and how the Air

Force fits into the nation's combat power. Four to seven years after commissioning is too late for this to happen. Specialization and "union building" has become very strong by this point in an officer's career.

One service, The United States Marine Corps, operates a school called The Basic School (TBS). TBS actually operates two courses—Basic Officer Course and Infantry Officer School. All further references to TBS in this paper will refer to the Basic Officer Course. Every new Marine lieutenant, regardless of commissioning source, must complete TBS. The school's purpose is to provide every Marine officer with a common professional foundation. No Marine lieutenant receives another assignment unless he or she satisfactorily completes TBS. The school does not, as some believe, concentrate solely on infantry skills. Every officer does graduate with basic infantry platoon commander skills, but the training is much more rounded than that. Everyone graduates with an understanding of all the mission areas the Corps operates in and has the skills to become operational immediately.¹⁵ In 26 weeks of training in TBS, every Marine officer is trained in almost every aspect of the Corps. TBS currently includes an almost unbelievable 1,681 hours of instruction over the 26 weeks.¹⁶ This training is in addition to what a Marine will receive when he or she goes on to his specialization.

TBS opens each officer's scope and vision as to how the whole Marine team works together. As Second Lieutenant Todd Wieser, a 1993 Air Force Academy graduate who attended TBS said upon finishing TBS, "I felt more knowledgeable in Marine Corps operations than I did about Air Force operations, even as an USAFA graduate." This is an astounding revelation and sparked my interest in developing a concept for a Basic Airpower School.

TBS is broken into three major parts—leadership (34%), academics (33%), and military skills (32%). Training days are long—typically 0500 to 1730. The Marine philosophy at TBS can best be summed up in a quote from FMFM 1, Warfighting, which states: "The purpose of all training is to develop forces that can win in combat. Training is the key to combat effectiveness and therefore is the focus of effort of a peacetime military." The Marine Corps has invested heavily in TBS to give every Marine officer a common professional foundation. TBS fosters the concept that every Marine has a common goal or mission to support the Marine Infantry. Even though a Marine officer may never be a rifleman in his career, he or she gains the knowledge of what a ground soldier does and why it is important. This overall goal provides focus and motivation for every Marine officer. The idea "if I do my job right, it will make it easier for the mud Marine to accomplish his mission" is central at TBS. 19 A Basic Airpower School could foster a similar goal-defending the United States through control and exploitation of air and space or supporting those who do. BAS would teach every lieutenant what the Air Force does to accomplish its mission. With that knowledge, each Air Force officer could better do his or her daily job by being able to answer the question, "is what I'm doing making it better for those airmen who defend the United States through control and exploitation of air and space?" The next section will begin to lay out the foundations of the Basic Airpower School.

¹ Grier, Peter, "ROTC's New Way," Air Force Magazine, January 1996, p. 50.

² Telephone Interview with Captain Montgomery AF/DPXF, Pentagon, 5 January 1996.

³ Air University Catalogue 1994-1995, (Maxwell Air Force Base: Air University Press, September 1994) p. 68.

- ⁴ Grier, Peter, "ROTC's New Way," Air Force Magazine, January 1996, p. 52.
- ⁵ Telephone Interview with Captain Montgomery AF/DPXF, Pentagon, 5 January 1996.
- ⁶ Air University Catalogue 1994-1995, (Maxwell Air Force Base: Air University Press, September 1994) p. 74.
- ⁷ Telephone Interview with Captain Montgomery AF/DPXF, Pentagon, 5 January 1996.
- ⁸ Air University Catalogue 1994-1995, (Maxwell Air Force Base: Air University Press, September 1994) p. 71.
 - ⁹ United States Air Force Academy Catalogue, 1995, p. 40.
 - ¹⁰ Air Force Catalogue 36-2223, 1 October 1995, pp. 3-104-139.
 - 11 Telephone Interview with Mr. Miller, AFPC/DPPAO, 6 January 1996.
- ¹² Air University Catalogue 1994-1995, (Maxwell Air Force Base: Air University Press, September 1994) p. 49.
 - ¹³ Ibid., 52.
- ¹⁴ Korb, Lawrence J., editor, *The System for Educating Military Officers in the U.S.*, (International Studies, Occasional paper no. 9), p. 105.
- ¹⁵ Wieser, Todd L., "Marine Corps Basic School Training Report and Cadet Program Proposal," (Unpublished paper, United States Air Force Academy, 29 March 1994) p. 2.
- ¹⁶ Telephone Interview with Lt Col John Cowan, The Basic School/XO, Quantico Marine Corps Base, 2 February 1996.
- ¹⁷ Wieser, Todd L., "Marine Corps Basic School Training Report and Cadet Program Proposal," (Unpublished paper, United States Air Force Academy, 29 March 1994) p. 2.
 - ¹⁸ FMFM 1-0, Leading Marines, p. 46.
- Wieser, Todd L., "Marine Corps Basic School Training Report and Cadet Program Proposal," (Unpublished paper, United States Air Force Academy, 29 March 1994) Appendix A.

Chapter 3

Basic Airpower School

BAS should be established at Maxwell Air Force Base, Alabama. As previously mentioned, BAS would take the place of SOS. Of course, because BAS would be six months long, more students would be at Maxwell at one time than is now the case with SOS. The Air Staff projects the following number of line officer accessions—from all three commissioning sources—over the FYDP (future years defense plan): FY 96—3287; FY 97—3139; FY 98—3353; FY 99—3916; FY 00—4080. BAS would include line officers only. A class of between 550 and 650 lieutenants would start every other month, for a total of six classes per year. This would cover the projected accession numbers referenced above.

The commandant of BAS would be a senior colonel, preferably post wing command. Each class would be commanded by a lieutenant colonel squadron commander. Each squadron would have three flights of approximately 200 student officers each. The flight commanders would be senior captains or new majors. Each flight could be further divided into elements of about 50. Element commanders would be Air Force officers with six to eight years service. Since three classes would end up at Maxwell at the same time, approximately 1600 to 2000 students would be at BAS at one time. This is considerably

larger than the current SOS student load of 700. Larger facilities would be needed, but that is beyond the scope of this concept paper.

Assignment to BAS would have to be considered a top-notch Air Force job for any officer. At TBS, officers assigned there are the Corps' top officers, and they provide outstanding role models for the student lieutenants. Because this BAS proposal includes flying training for all lieutenants not attending pilot or navigator training, attracting rated officers would be easier than SOS or OTS, since rated faculty members would help instruct the lieutenants in their flight training. It is critical that the Air Force make assignment to BAS the equivalent of the former Air Staff Training (ASTRA) or current intern program. We must attract the best and brightest from all career fields and then make their follow-on assignments prove how critical BAS is to the Air Force. Squadron, flight and element commanders must—like TBS—be involved with all aspects of the lieutenants' training and be the superior role models for every student.

Currently, pilot and navigator training candidates know what jobs they will be going to when they leave a commissioning program. Other career field choices are accomplished in a variety of manners. BAS should—like TBS—decide on what jobs non-contracted officers will be assigned. TBS uses class ranking to determine to what job a lieutenant will go. Along with class ranking, TBS takes into account the student platoon commander's recommendation. Class ranking is stratified into thirds, so the sought after career fields, such as infantry, get officers from the top, middle and bottom thirds of each class. Since the TBS faculty is made up of a representative cross section of all Marine Corps officer jobs, they are in an excellent position to counsel and motivate student officers towards a particular career field.² An advantage of BAS would be the ability, like TBS, to allow

student officers to make an informed decision about career fields before they enter them. "Career" nights could be conducted to get the word out about job opportunities in the Air Force. Since the BAS faculty would be made up of a representative cross section of all relevant line Air Force Specialty Codes (AFSCs), a much more informed choice could be made by student officers.

The size of the BAS faculty would have to be larger than SOS. SOS faculty size is approximately 100 officers³ to teach a typical class size of 700 students. Since BAS would have a maximum of 1500-1900 students attending school at any one time, the faculty size would have to be about 250 officers, preferably from a broad cross section of line officers. Direct student contact positions—squadron, flight and element commanders—would have to be exceptional role models and come from as many different jobs as possible. Officers engaged in teaching the academic portion of the course would have to favor the war-fighting nature of the curriculum—the four core competencies plus space and information warfare. The next section will discuss the proposed syllabus of BAS.

¹ Telephone Interview with Mr. Curt Lambert, AF.DPXF, Pentagon, 5 January 1996.

² Telephone Interview with Lt Col Steve Pickerelli, The Basic School, Quantico Marine Corps Base, 2 February 1996.

³ Informal discussions with SOS faculty during Senior Officer's perspective day, 8 February 1996.

Chapter 4

BAS Syllabus—Strategy, Doctrine and Airpower Background

As we've mentioned previously, the major purpose of BAS will be to educate student officers about the core competencies and core values of the Air Force. This will be the primary focus of the course. The Commission on Roles and Missions of the Armed Forces released its report in May 1995. Secretary Widnall said, "The Commission's framework properly emphasizes the distinctive specialized competencies and contributions of the Services, noting the core competencies of the Air Force include air superiority, global strike, deep attack and air mobility." In addition to the four core competencies, BAS should also include two other areas mentioned by Secretary Widnall in an address to the Air Force Association in Los Angeles in October 1995. "The Air Force has oriented its planning process around the unique core competencies that the Air Force brings to the joint table. They are: air superiority, space superiority, precision employment, global mobility and information dominance. These core competencies match the roles and missions commission well and with the addition of space and information, BAS will cover all the appropriate core competencies. Global strike and deep attack can be considered part of precision employment. Precision employment, however, also includes activities across the range of military operations—such as peacekeeping, humanitarian relief, and non- combatant evacuation operations.²

The foundational core of BAS must be a thorough history of airpower theory, doctrine and strategy. In contrast to what the ROTC curriculum director stated, lieutenants attending BAS must have a thorough foundation in airpower history and the development of our doctrine and strategy. Only with this fundamental education can we hope to develop the type of airminded officers who can eat, sleep and speak "airpower." This section of the syllabus will include 160 training hours, or one month of study. This portion of the course would be broken into three parts: (1) Air Power Theory, Doctrine and Strategy 1900-1945; (2) Air Power Theory, Doctrine and Strategy 1945-1975; and (3) Air Power Doctrine and Strategy 1975 to the present.³

This course would begin at the beginnings of powered flight including the World War I experience. Next, Mitchell and Douhet would be examined in detail. The inter-war period would be next—including readings from *A Few Great Captains* and a history of the Air Corps Tactical School (ACTS). An interesting vignette comes to mind. An often-repeated story is told about ACTS in the middle 1930's. Academics were covered in the morning, with flying in the afternoon. One day, the propeller governor control spring broke on several of the airplanes. When the ACTS officers began looking for a replacement spring, they discovered that it was built at only one plant in Pennsylvania. Unfortunately, that one plant was flooded, and no springs would be forthcoming for a number of weeks. The ACTS students learned that one critical element if taken out of the supply system—by bombing, for example—the enemy aircraft fleet could be disabled. This reportedly was one of the beginnings of targeting theory for strategic bombers. Students at BAS would study the Royal Air Force and the Luftwaffe and how they created a separate Air Force and changed the nature of warfare. World War II, including the

European Campaign and the Strategic air war against Japan would be covered in detail.⁴ The immediate post–World War II era and the ascendancy of the strategic bomber with nuclear weapons is important. The Korean War would be examined. The Vietnam War and Gulf War would also be taught in detail. Post-Vietnam doctrine and Tactical Air Command and U.S. Army Training and Doctrine Command (TRADOC) cooperation are critical to understanding this period and should be emphasized.⁵

During this fundamental course, BAS students would also be exposed to the Navy's Maritime Strategy and the Army's Air Land Battle Doctrine to help our lieutenants see where airpower fits in and to help equip them to articulate the doctrine battles with the other services later in their careers. Finally, BAS should have a reading list. A good starting point would be one like the November 1995 Air University Reading List or the current OTS reading list.

BAS Syllabus—Core Values

The military profession is different from any other. BAS students would receive an 80- hour course stressing the Air Force's Core Values—integrity, service above self and excellence. Excellence will be covered later when we discuss the syllabus for the core competencies.

The United States Air Force exists for one reason and one reason alone—to fight and win America's wars when called upon to do so. That is our core expertise. Because the tools of our trade are lethal, the American people expect a higher standard than society at large. To earn the respect of the American public, Air Force officers must know that integrity is the bedrock of our profession. Those of us in the military ascribe to what

British soldier-scholar General Sir John Hackett calls the "unlimited liability" clause.⁷ Our officers must be taught that they may be called upon to lay down their life for their country. Officers must demonstrate the utmost integrity and honesty in everything they do—on and off duty.

Real life examples of integrity are critical to a course like this. Integrity is the inner voice, the source of self-control, and the basis for trust that's imperative in today's military. It's doing the right thing when no one is looking. Major Clay McCutchon knew the right thing to do. Orbiting over the December 1989 invasion of Panama, his AC-130 was ordered by ground commanders to fire on a convoy of armored personnel carriers (APC) As they moved in, crew members detected what appeared to be friendly signals coming from one of the APCs. Three more times ground commanders ordered McCutchon to fire and he refused each time. Air Force officials later discovered that the crews' decision avoided killing 30 U.S. Soldiers who had captured the position minutes before.8

Dr. Jim Toner teaches a course at the Air War College called "Command and Conscience." This course should be adapted for BAS and taught to every lieutenant. Toner's course seeks to answer questions such as: How does the leader resolve the tension inherent in the occasional clash of command responsibility and ethical imperative? To whom or to what, for instance, does the leader owe the highest loyalty—to his superior?; to the Constitution?; to the Commander-in-Chief?; to his religious/philosophical judgments? If integrity is, as it must be, the heart of the officer corps, it must be examined before it can be assimilated. Arguably, this could be the most important course taught at BAS.

BAS Syllabus—The Four Core Competencies

The next portion of BAS would examine, mostly at the operational and tactical level, the Air Force's four core competencies as recognized by the roles and missions commission—air superiority, global strike, deep attack and air mobility. These four areas would have several aspects in common—along with space and information warfare—that will be discussed in the next section. Each of these mission areas would be taught separately, but with an emphasis of how they fit together. Three hundred twenty academic hours would be devoted to the four core competencies, eighty hours for each.

The courses would begin with a good doctrinal definition of the particular competency. Air superiority, for example, is critical. British Field Marshall Bernard Montgomery once commented, "If we lose the war in the air, we lose the war and we lose it quickly." Air superiority is that degree of dominance in the air that permits friendly land, sea and air forces to operate at a given time and place without prohibitive interference by the opposing force. To make the four core competencies more interesting and concrete to students, wing mission briefs of Air Force wings tasked in the core areas would be presented. The wing commander or operations group commander from the First Fighter Wing at Langley, for example, could fly in, brief the wing's mission and do a static display to kick off air superiority. Other wings could do the same thing for their respective mission areas. This is critical to help students understand how the Air Force employs combat power. Additionally, representatives from the warfighting CINC's could also brief on how Air Force Wings fit into the CINC's wartime missions.

Red Flag briefs could also teach students about air superiority, deep attack and global strike competencies. For example, a static display F-15C crew would fly into Maxwell

and give a "flight suit" brief about a Red Flag air superiority mission from beginning to end. This could make the concepts come alive for students. Additionally, the aircraft used for each mission area should be studied in some detail. BAS students should know the general characteristics of an F-15C, an F-16 block 50, and F-15E, a C-17, a JSTARS, etc.

Weapons used by each of the mission areas are also important. Missiles such as the AIM 7, AIM 9 and AIM 120 for air superiority would be studied in detail.¹³ In the deep attack competency, requirements for the hardware such as long range, large payload, speed, signature, maneuverability, flexibility (day/night/vmc/imc) and precision would be taught. This would give every lieutenant an idea of what it takes to design a weapons system for a particular mission. Engineers, logisticians and acquisition officers would particularly benefit from this information.¹⁴

For deep attack, lieutenants would be taught that the most capable enemy systems drives the airplane requirements. For example, integrated air defense systems must be neutralized first or high attrition will result. Multiple support is required in a deep strike such as intelligence on how a target set is constructed, how thick the walls are, if we need a penetrator weapon or where the desired mean point of impact is. This level of detail in the course will help the lieutenant fully understand the complexities and advantages/limitations of deep attack.¹⁵

In all the core competencies, lieutenants would be taught what Air Force plans for follow-on weapons systems are. In the air superiority and deep attack roles, the Air Force is looking to the F-22 and Joint Advanced Strike Technology (JAST). In the next decade, the Air Force will increasingly rely on the F-22's ground attack and suppression of enemy

air defense capabilities. What about the F-15E/F-111/F-117 follow on? Will JAST fill those roles, or should the Air Force buy more F-15Es?¹⁶ These questions, along with the same for the other competencies would be covered.

In the global strike core competency, students would be exposed to how the Air Force carries out this mission. The B-1/B-2 and B-52 weapons systems would be studied in detail along with special capabilities such as the conventional cruise missile, advanced cruise missiles, Have Nap and Harpoons.¹⁷ The Air Combat Command briefing "Bomber Road Map" could be presented. Students would also be given an appreciation that, for example, the two major regional contingency (MRC) strategy drives the bomber force structure. Students would learn that the U.S. has one of only two active manned strategic bomber programs in the world. The rest of the world uses versions of multi-role fighters for bombing missions.¹⁸

The Air Force plans to maintain a force of about 180 bombers, including 84 B-1s, 20 B-2's (by 1997) and 84 B-52Hs. With proper maintenance, the B-52 could be flying until 2040! The current debate about bomber force structure centers on the B-2. Northrup-Grumman has offered an additional 20 B-2s for 15.8 billion dollars. Congress and the administration have not agreed on what course of action to take regarding the B-2. This type of discussion for all the core competencies would be very valuable.

Munitions in the bomber force would also be taught, such as MK 82s, cluster munitions, and precision guided munitions (PGMs) like the Joint Direct Attack Munition (JDAM), Joint Air-to-Surface Standoff Missile (JASSM) and the Joint Standoff Weapon (JSOW). The unique capabilities of our B-1s/B-2s and B-52s, and particularly the latter's contributions to the Gulf War are important topics for BAS.²⁰

The final core competency for BAS is Air Mobility. With the downsizing of the United States military and the drawdown of U.S. Forces overseas, the capability to use mobility assets to respond to national interests worldwide becomes even more critical.²¹ A brief history of air mobility is important, pointing out that perhaps the greatest cold war victory that was won with airlift, the Berlin Airlift. Air-refueling history would also be covered. The BAS student will also learn about the Tanker Airlift Control Center (TACC) and how it performs its worldwide command and control mission and directs mobility support lay down packages.²²

Cargo characteristics of each of the airlift aircraft in the inventory would be taught with a special emphasis on cargo planning. Every lieutenant needs to know how to plan a load to be airlifted. Training similar to that given to Army and Navy load planners by Air Mobility Control Squadrons would be part of the syllabus. This would allow every lieutenant to appreciate what can be airlifted and how we plan to do it. Further, BAS students would be taught that the strategic airlift business is essentially a two-country business—the United States and Russia.²³ This means, that when a peacekeeping operation happens anywhere in the world, it is almost always the U.S. that airlifts whatever country needs to get to where the action is. BAS students would be taught that only the U.S. has the capability, for example, to airlift an M1A1 tank, nonstop, from Savannah, Georgia to Mogadishu, Somalia. We have the best airlift system in the world.

The three hundred twenty hours of studies of the four core competencies would allow BAS graduates to talk intelligently about how the Air Force conducts its combat operations in air superiority, deep attack, global strike and air mobility. This portion of the course would be fun, operationally oriented, with lots of "flight suit" briefings and

hands-on static displays. It is critical that all our officers know how the Air Force fights and wins.

- ¹ Policy Letter Digest, "Roles and Missions Commission Validates USAF Core Competencies," October 1995, p. 4.
 - ² Air Force Doctrine Document 1 (Draft), 15 August 1995, p. 1.
- ³ Air War College Syllabi from Colonel Robyn Read and Dr. James A. Mowbray's courses: "Air Power Theory, Doctrine and Strategy, 1900-1945 and Air Power Theory, Doctrine and Strategy, 1945-Present."
 - ⁴ Ibid.
 - ⁵ Ibid.
- ⁶ Policy Letter Digest, "Integrity" by General Ronald R. Fogelman, December 1995, p. 1.

 7 Ibid.
- ⁸ Widnall, Sheila, "Of Three Who Did the Right Thing," Air Force Times, 13 November 1995, p. 33.
- ⁹ Air War College Advanced Course Syllabus, "Command and Conscience," Dr. James H. Toner, AWC/DFL.
 - ¹⁰ Air Force Doctrine Document 1 (Draft), 15 August 1995, p. 8.
 - 11 Ibid.
 - ¹² Interview with Lt Col Mike Reese, AWC Student, 2 February 1996.
 - ¹³ Interview with Lt Col Jack Barton, AWC Student, 8 February 1996.
 - ¹⁴ Interview with Lt Col Tom Yanni, AWC Student, 2 February 1996.
- ¹⁶ Aboulafia, Richard, "Fighter Market Holds its Own," Aviation Week and Space Technology, 8 January 1996, p. 15.
 - ¹⁷ Interview with Lt Col Mike Reese, AWC Student, 2 February 1996.
- ¹⁸ Aboulafia, Richard, "Fighter Market Holds its Own," Aviation Week and Space Technology, 8 January 1996, p. 17.
 - 19 Ibid.
 - ²⁰ Interview with Lt Col Mike Reese, AWC Student, 2 February 1996.
- ²¹ Air War College Advance Course 4406A Syllabus, "Aerospace Power's Global Reach Strategy."
 - ²² Ibid.
- ²³ Aboulafia, Richard, "Fighter Market Holds its Own," Aviation Week and Space Technology, 8 January 1996, p. 20.

Chapter 5

Space and Information Warfare

Two other core areas of the Air Force are also critical for lieutenants to understand. Today, knowledge about space among the officer corps is not good. Space superiority is identified as a core competency in the draft Air Force Doctrine Document 1. Control of space enhances, and may even secure, freedom of action for friendly forces in all geographical environments. Since it is difficult to establish space supremacy, counter space operations need to concentrate on attaining space superiority, which may be won—in part—by attacks on the terrestrial components of space systems. In the near-term, non-space systems are key to attacking earth bound components of space systems—radar dishes, computer controls, etc. BAS students must understand this basic space doctrine and must also grasp some space fundamentals.

BAS students will then be taught how Air Force Space Command is organized. Its missions include:

- 1. Support NORAD by providing warning information of missile or space attack
- 2. Ensure the right to operate freely in space
- 3. Operate and maintain U.S. satellites in orbit to serve military space functions such as communications, navigation surveillance and meteorology
- 4. Monitor space activities relating to satellites and debris
- 5. Support U.S. Unified (Combat) commands around the world by providing ballistic missile and space attack warning
- 6. Plan for employment of a Ballistic Missile Defense System²

Once the BAS student knows something about Space Command—which many officers don't—some technical space training would follow. Orbital mechanics, such as inclination, geosynchronous versus geostationary, and launch windows are critical for the BAS student to understand. After a basic foundation in orbital mechanics, the space course would include instruction in space surveillance. The Air Force space surveillance network currently can track objects 10cm or larger—of which there are about 7000 in earth orbit. Next, the United States Spacelift program would be taught. Pegasus, Scout, Atlas, Delta and Titan plus the Space Shuttle are the current launch vehicles the U.S. operates. The only operational reusable system in the world is the space shuttle.³

Other topics to be covered in the space course would include satellite operations, defense meteorological satellite program, communications satellites, Global Positioning System, and the Defense satellite program.⁴ This eighty-hour course would make all BAS graduates conversant in space terms, hardware and doctrine. Integration of space into the war fighting CINCs would also be stressed.

Information warfare or information dominance is a new area of emphasis and is considered a core competency in the draft Air Force Doctrine Document 1. Information dominance can be described as a condition in which our commanders possess a greater understanding of the strengths, weaknesses, and centers of gravity of an adversary's military, political, social, and economic infrastructure than that adversary possesses about us.⁵

Information has become both a weapon and a target in modern warfare. The ability to erase, disrupt or tamper with an enemy's electronically stored data has become vital to offensive operations. Information warfare has become so important, that Air Combat

Command has established its first dedicated information warfare unit—the 605th Information Warfare Squadron at Shaw AFB, South Carolina. Rapidly mobile forces will increase the demand for real time, high-speed information systems. Commanders want real time battlefield photographs, and that requires lots of bandwidth. Communications facilities will be strained or overloaded, such as during the Gulf War.⁶ BAS students would be taught that at the corps or division level or lower, most U.S. communications systems are based on indigenous or service specific systems. Above this level, military communications needs are met largely by civil systems.⁷

New systems, such as Joint Surveillance Target Attack Radar System (J-STARS), can track and target any movement on the ground in darkness and under all weather conditions and are critical to information dominance. BAS students need to know that AWACS upgrades will allow it to detect and track theater ballistic missiles—SCUDS. The U.S. Air Force will also use the F-16 HARM (High Speed Anti-Radiation Missile) targeting system (HTS) and the Rivet Joint RC-135 to replace the F-4G Wild Weasel aircraft. The RC-135 Rivet Joint aircraft will loiter near the battlefield—making air superiority critical—collecting detailed data on the enemy's air defense system and providing it to the F-16 HTS crew to enable the target to be attacked rapidly. These are a few examples of information dominance that BAS students must understand to be able to articulate our core competencies.

¹ Air Force Doctrine Document 1 (Draft), 15 August 1995, p. 9.

² "Space Operations Orientation Course," 21st Crew Training Squadron, Air Force Space Command, Peterson AFB, CO, p. 7.

³ Ibid., 97.

⁴ Ibid., vii.

Air Force Doctrine Document 1 (Draft), 15 August 1995, p. 10.
 Brown, David A., "Managing Data to Win the Information War," Aviation Week and Space Technology, January 1, 1996, p. S1.
 Ibid., S3.
 Ibid., S4-S6.

Chapter 6

Flight Commander's Course

The flight commanders' portion of BAS would give the lieutenants the tools to properly command a flight upon graduation. During the six-month course, students would hold various in-garrison and field leadership positions. Officers on the faculty would closely monitor BAS students exercising leadership. This would be an important part of overall class standing at graduation time. The academic portion of the flight commanders' course—40 hours—would include the following items: military law, enlisted performance report writing and feedback procedures, officer performance report writing, the weighted airman promotion system (WAPS), enlisted basic and technical training and the enlisted and officer assignment system. Some of these areas have not received enough emphasis in past years in the Air Force. For example, I have never received any formal training on the WAPS system or the enlisted overseas assignment system (EQUAL) during my almost 21 years of service. During the flight commanders' course, writing and speaking skills could be emphasized by assigning briefing and writing topics to students.

The law portion of the curriculum would include the Law of Armed Conflict, Contracting Law, quality force management and administrative separations, unprofessional relationships, Article 15 law, the Air Force urinallysis program and searches and

inspections. Environmental and labor relations law could also be covered. Law would be a very important portion of this course.¹

The flight commanders' course must instill in every officer that he or she, no matter what his job responsibility is either serving as or supporting a commander. Understanding the core elements of command responsibility is critical to new lieutenants. The commander must continually foster a leadership climate that will stand up to any test, including combat. This means insisting on proficiency and professional dedication at every echelon. This means establishing a rock solid foundation of integrity and ethical behavior. This means taking care of the troops and their families. The future of the U.S. Air Force depends on how well commanders do their job.²

¹ Air War College syllabus, "The Military Commander and the Law," Advanced Course 4203B.

² Krulak, Charles C., "The Marine Commander," *Marine Corps Gazette*, December 1995 p. 17.

Chapter 7

Wargaming, Field Exercise, and Flight Training

The capstone portions of BAS would include a one-week wargaming exercise, a two-week field encampment exercise and flight training for all BAS students except pilot and navigator candidates. The flight-training portion of BAS would be spread throughout the six-month program to even out the daily sortic requirements. We'll cover more on this later in this section.

The wargaming exercise, preferably with the help of the U.S. Air Force Wargaming Center at Maxwell, would be a tactical level air campaign planned and executed by BAS students with help as necessary from the faculty. Students would plan logistical movements of combat units from the United States to the wargaming area. Real country names should be used as they add much more fidelity to the exercise. Once units are bedded down in theater, BAS students would plan and air campaign and then produce air tasking orders to execute their plan. The wargaming exercise would help every BAS student get a detailed exposure to how the Air Force plans and fights to win. The fidelity of the exercise is very important, and it would be designed to be as accurate as possible.

While this one-week wargame is being conducted, BAS students would also be using their load planning skills from the air mobility core competency area to plan the final portion of BAS, the two-week field encampment. The encampment would have several purposes. BAS students would be exposed to UTCs (unit tasking codes) for people and equipment. The field encampment would involve one squadron from BAS—about 600-700 lieutenants. Faculty members would accompany students and stay in the field with them.

After planning what needs to go to the field, loads would be built up on 463L airlift pallets, simulating airlift, and trucked to the encampment site. BAS students would have to decide what items and people need to go first and then figure out the correct sequence of people and equipment. This is not easy, and I have found it to be a really weak area in the Air Force Officer Corps. The location for the encampment could be at an airfield called Vaiden, about 20 miles northwest of the former Craig AFB in Selma, Alabama. Vaiden was formerly an auxiliary training field for Craig AFB. To give the two-week encampment the operational focus it needs, BAS flight training would deploy a number of airplanes to Vaiden and conduct flight-training operations supported by the BAS encampment. This would give the BAS students exposure to the most typical Air Force encampment—supporting flying operations at a bare base location.

While at the encampment, BAS students would set up and run the tent city. Permanent wooden floors could be left erected, but everything else would be shipped in. During the two-week encampment, BAS students would be taught ATSO (ability to survive and operate) skills such as chemical mask and equipment wear and use. Support functions such as field kitchens, mortuary support and airfield security would be conducted by BAS students with instruction from experts in these fields from the faculty. Each BAS student would be exposed to and taught air base ground defense skills similar to what security police officer students receive at Camp Bullis, Texas. Weapons

qualification with the 9mm pistol could be done on site with FATS (firearms training system)—an excellent computer simulation of live fire. Faculty members could teach this portion. BAS students would have to set up security for the encampment and penetration exercises would be part of the training. These two weeks of training would teach each officer how a tent city is erected, how to run one and how all the support functions required to keep it operating work. By supporting a deployed flight training operation, the encampment would have an operational purpose and demonstrate to BAS students how the support AFSCs fit into the operational picture.

The final portion of the curriculum, and surely one to be the most controversial, is flight training for all BAS students except those going to pilot or navigator training. Pilot and navigator training numbers combined over the FYDP are as follows. FY96—703; FY 97—988; FY 98—1196; FY 99—1266 and FY 00—1334.¹ The total line officer production numbers are: FY 96—3287; FY 97—3139; FY98—3353; FY99—3916 and FY 00—4080.² Subtracting the two numbers leaves the following numbers of BAS students to be flight trained each year: FY 96—2584; FY 97—2151; FY 98—2157; FY 99—2650 and FY 00—2746.

Currently the Air Force Academy has a program called "soar for all." This soaring program—the largest in the world—has the goal of exposing every third classman (sophomore), regardless of physical qualification for pilot training, to about ten glider sorties, including solo. The Academy's airmanship program is specifically targeted at cadets who will never become rated officers. Its objective is to enhance character development, deepen the cadet's knowledge of basic mission skills and teach him or her a bit about flying, perhaps for the first and last time in a career.³ "The air is our primary

focus . . . that's where we work in the Air Force. Whether an officer flies or doesn't fly, a knowledge of 'the air' is essential—and that knowledge must extend to understanding what the flight line environment is all about."

ROTC is planning to send up to 300 cadets per year to the Air Force Academy by 1998 to participate in soaring.⁵ Flying training is a powerful motivator. The number one program at the Air Force Academy, according to recent surveys is the "soar for all" program.⁶ Airpower includes not only military assets, but an aerospace industry and commercial aviation.⁷ Surprisingly, few young Americans have been exposed to aviation.⁸ In 1978, 200,000 people started learning how to fly. In 1994, that number had shrunk to 58,000.⁹ Flight training can build "air minded" citizens who know what an airplane is and how it operates. Even if an officer only stays in four or five years, he or she has been exposed to aviation. This helps build a national "air mindedness." To give all our officers a core experience and shared knowledge and skills is a critical purpose of BAS. Flight training can help accomplish this.

Each BAS student would receive 10 to 12 sorties in a Cessna 172 leading to a solo flight. Experience at the Air Force Academy and University of North Dakota Aerospace University shows that virtually every student has the ability to safely solo. UND Aerospace, in fact, requires all its students, regardless of major—mechanic, air traffic controller, etc.—to complete a private pilot license. This gives all students a core experience and knowledge level. This is exactly what BAS aims to accomplish. Physical requirements would not be an issue. The entry physical to be commissioned in the Air Force is more restrictive than an FAA Class III required to solo a powered aircraft. In addition to the 10 to 12 flying sorties, each BAS student would receive a private pilot

ground school course. This ground school would include the following subjects: Aerodynamics, airplane performance, airports and air traffic control, federal aviation regulations, aviation weather, navigation charts, navigation flight planning, and cross country flying. The ground school would be taught by rated members of the BAS faculty or any BAS student with a civilian instructors' license. This academic course would give the BAS student a good grasp of aviation fundamentals.

With between 2151 and 2746 students to teach each year, about 30,000 sorties per year would be required. As a comparison, the Air Force Academy has 33,000 glider sorties and 16,000 T-3A pilot screening sorties per year. The 30,000 sorties spread over 125 training days (five days per week) would require about 250 sorties per day. A fleet of about 100 Cessna 172s would be required. The Cessna 172 will be available new in October 1996. The flight training would be based, notionally, at the old Craig AFB. There is plenty of ramp space for the airplanes, and the runway is in good shape. A contractor like Doss aviation—which conducts Air Force flight screening at Hondo, Texas—would handle most of the flying. Rated faculty members would also fly with BAS students. In addition, a small number of BAS faculty who volunteered, and demonstrated superior abilities and officer performance, could be sponsored by the Air Force to receive a flight instructor's rating. This would allow some non-rated officers to help instruct BAS students and act as a motivational factor to improve performance for all officers. BAS students would see that if one excels, he or she could return as a BAS instructor and help instruct in the flying portion.

Finally, every BAS student that graduates from the flight-training program—whether they solo or not—would receive a pair of wings with a new design. The center would

have the "Hap Arnold" design like the buttons on the new service dress uniform. All BAS graduates would also be issued a leather jacket. This would build a strong sense of belonging in the Air Force, make every officer feel like he or she is part of the team and would foster an "air minded" espirit-de-corps.

Summary of Courses and Hours:

History and Theory of Airpower Strategy and Doctrine	160 hours
Core Values	80 hours
Space	80 hours
Information Dominance	40 hours
Field Training	120 hours
Air Superiority	80 hours
Deep Attack	80 hours
Global Strike	80 hours
Air Mobility	80 hours
Flight Commander's Course	40 hours
Wargaming	40 hours
Flying training (includes transportation, briefing, etc.)	120 hours
Total Academic Hours	1000 hours

¹ Telephone Interview with Major Lennie Jenkowski, AFPC, 12 January 1996.

² Telephone Interview with Mr. Curt Lambert, AF.DPXF, Pentagon, 5 January 1996.

³ Miller, Walter D., "Airmanship Spoken Here," Air Force Magazine, December 1995, pp. 74-75.

⁴ Ibid., 74.

⁵ Grier, Peter, "ROTC's New Way," Air Force Magazine, January 1996, p. 53.

⁶ Telephone Interview with Major George Daniels, 94th Flying Training Squadron Operations Officer, 12 January 1996.

⁷ Meilinger, Phil, "10 Propositions Regarding Air Power," Air Force History and Museums Program, 1995, p. 61.

⁸ Miller, Walter D., "Airmanship Spoken Here," Air Force Magazine, December 1995, p. 75.

⁹ Jeppesen Sanderson Videotape, Certified Flight Instructor's Renewal Program, "Student Perspectives," August 1994.

Telephone interview with Ken Polovitz, UND Aerospace University of North Dakota, 19 Jan 1996. Telephone Interview with Major George Daniels, 94th Flying Training Squadron Operations Officer, 12 January 1996.

¹¹ Telephone interview with Ken Polovitz, UND Aerospace University of North Dakota, 19 January 1996.

¹² Interview with Lt Col (Dr.) Bill Germann, AWC Student and Flight Surgeon, 15 December 1995.

¹³ Miller, Walter D., "Airmanship Spoken Here," Air Force Magazine, December

^{1995,} pp. 75.

14 Bedell, Peter A., "Cessna meets CATIA," *AOPA Pilot*, October 1995, p. 61.

15 Telephone Interview with Mr. Ben Oliver, Craig Field Fixed Base Operator, 13 February 1996.

Chapter 8

Conclusion

It is time for the Basic Airpower School. It is time for our officers to tell people not what they do, but who they are—airmen! By sending all our line lieutenants and giving them six months of intense training, we can accomplish the goal of training and educating "airminded" officers who can articulate the core competencies of the Air Force and intelligently argue what we bring to the joint table. By training every officer in the critical core values of our profession—integrity, service above self and excellence—we can foster the idea that joining the Air Force is not just a career, but a calling.¹ We must inculcate—by example and stories of those who have gone before us—the idea that integrity is always the right course of action. Service above self—like Colonel Paul Weaver's C-5 crew at Dhahran during Desert Storm taking off their gas masks when the children they were transporting had none—must be taught and modeled every day.

By teaching all our officers the core values and core competencies of our Air Force, we could conceivably (as General Krulak, Commandant of the Marine Corps says), literally transform America. When airmen return to their cities and towns, they will be the example and role model for everyone to emulate.² We will finish with an idea from General Krulak. "I want my legacy . . . to be literally a transformed America . . . if we can extend the development of ethos and values . . . [we] can literally transform the youth of

America." With the right kind of syllabus, The Basic Airpower School could transform our lieutenants in the same manner. It is time for the Basic Airpower School.

Will, George F., "The Military's Counterculture," *The Washington Post*, September 28, 1995, quoted in *Marine Corps Gazette*, November 1995, p. 27.
 "General Charles C. Krulak, Commandant, U.S. Marine Corps," *Armed Forces*

Journal International, January 1996, p. 24.

³ Ibid., 20.

Bibliography

Conversation with Colonel Phil Meillinger, Maxwell AFB, AL, 30 January 1996.

Telephone interview with Ken Polovitz, UND Aerospace University of North Dakota, 19 January 1996.

McPeak, Merrill A., "Does the Air Force Have a Mission?" Selected Works, 1990-1994, Maxwell Air Force Base, Alabama, Air University Press, August 1995, pp. 151-162.

Builder, Carl H., *The Icarus Syndrome*, (New Brunswick: Transaction Publishers, 1994), p 179.

Pivarsky, Carl R., "Airpower in the Context of a Dysfunctional Joint Doctrine," (Unpublished paper, Air War College, January 1996), pp. 1-18.

Joint Pub 1, pp. 111-117.

FMFM 1-0, Leading Marines, p. 46.

Petersen, John L., The Road to 2015, (Corte Madera, CA: Waite Group Press, 1994) p. 10.

Baer, George W., One Hundred Years of Sea Power: The U.S. Navy, 1890-1990, (Palo Alto: Stanford University Press, 1994), p. 403.

Gordon, Michael R. and General Bernard E. Trainor, *The Generals' War, The Inside Story of the Conflict in the Gulf*, (Boston, Little Brown and Company, 1995), pp. 77-78

Grier, Peter, "ROTC's New Way," Air Force Magazine, January 1996, pp. 50-53.

Telephone Interview with Captain Montgomery AF/DPXF, Pentagon, 5 January 1996.

Air University Catalogue 1994-1995, (Maxwell Air Force Base: Air University Press, September 1994) pp. 40-67.

United States Air Force Academy Catalogue, 1995, pp. 32-153.

Air Force Catalogue 36-2223, 1 Oct 1995, pp. 3-104-139.

Telephone Interview with Mr. Miller, AFPC/DPPAO, 6 January 1996.

Korb, Lawrence J., editor, *The System for Educating Military Officers in the U.S.*, (International Studies, Occasional paper no. 9), p. 105.

Wieser, Todd L., "Marine Corps Basic School Training Report and Cadet Program Proposal," (Unpublished paper, United States Air Force Academy, 29 March 1994) pp. 1-39.

Telephone Interview with Lt Col John Cowan, The Basic School/XO, Quantico Marine Corps Base, 2 February 1996.

Telephone Interview with Mr. Curt Lambert, AF.DPXF, Pentagon, 5 January 1996.

Telephone Interview with Lt Col Steve Pickerelli, The Basic School, Quantico Marine Corps Base, 2 February 1996.

Informal discussions with SOS faculty during Senior Officer's perspective day, 8 February 1996.

- Policy Letter Digest, "Modern Warfare has Changed; The Air Force was Ready for it," Dr. Widnal's speech to Air Force Symposium, Los Angeles," November 1995, pp. 3-4.
- Policy Letter Digest, "Roles and Missions Commission Validates USAF Core Competencies," October 1995, p. 4.
- Air Force Doctrine Document 1 (Draft), 15 August 1995, pp. 8-10.
- Air War College Syllabi from Colonel Robyn Read and Dr. James A. Mowbray's courses: "Air Power Theory, Doctrine and Strategy, 1900-1945 and Air Power Theory, Doctrine and Strategy, 1945-Present."
- Policy Letter Digest, "Integrity" by General Ronald R. Fogelman, December 1995, p. 1.
- Widnall, Sheila, "Of Three Who Did the Right Thing," *Air Force Times*, 13 November 1995, p 33.
- Air War College Advanced Course Syllabus, "Command and Conscience," Dr. James H. Toner, AWC/DFL.
- Interview with Lt Col Mike Reese, AWC Student, 2 February 1996.
- Interview with Lt Col Jack Barton, AWC Student, 8 February 1996.
- Aboulafia, Richard, "Fighter Market Holds its Own," Aviation Week and Space Technology, 8 January 1996, pp. 15-17.
- Air War College Advance Course 4406A Syllabus, "Aerospace Power's Global Reach Strategy."
- "Space Operations Orientation Course," 21st Crew Training Squadron, Air Force Space Command, Peterson AFB, CO, pp. vii-97.
- Krulak, Charles C., "The Marine Commander," *Marine Corps Gazette*, December 1995 pp. 16-17.
- Telephone Interview with Major Lennie Jenkowski, AFPC, 12 January 1996.
- Miller, Walter D., "Airmanship Spoken Here," Air Force Magazine, December 1995, pp. 74-77.
- Telephone Interview with Major George Daniels, 94th Flying Training Squadron Operations Officer, 12 January 1996.
- Meilinger, Phil, "10 Propositions Regarding Air Power," Air Force History and Museums Program, 1995, p. 61.
- Jeppesen Sanderson Videotape, Certified Flight Instructor's Renewal Program, "Student Perspectives," August 1994.
- Interview with Lt Col (Dr.) Bill Germann, AWC Student and Flight Surgeon, 15 December 1995.
- Bedell, Peter A., "Cessna meets CATIA," AOPA Pilot, October 1995, pp. 61-67.
- Telephone Interview with Mr. Ben Oliver, Craig Field Fixed Base Operator, 13 February 1996.
- Will, George F., "The Military's Counterculture," *The Washington Post*, September 28, 1995, quoted in *Marine Corps Gazette*, November 1995, p. 27.
- "General Charles C. Krulak, Commandant, U.S. Marine Corps," *Armed Forces Journal International*, January 1996, pp. 20-24.
- Interview with Lt Col Tom Yanni, AWC Student, 2 February 1996.
- Brown, David A., "Managing Data to Win the Information War," Aviation Week and Space Technology, January 1, 1996, pp. S1-S8.

Air War College syllabus, "The Military Commander and the Law," Advanced Course 4203B.